E1 under 35 U.S.C. § 365 to PCT/DE00/00244, filed January 29, 2000, all of which are incorporated by reference herein.--

Please replace the paragraph at page 1, lines 4-7, with the following replacement paragraph:

-- Background of the Invention

E2 This invention relates to double-stranded ribonucleic acid (dsRNA), its use in mediating RNA interference in vitro and in vivo, and compositions and cells comprising the dsRNA.--

Please replace the paragraph at page 2, lines 31-33, with the following replacement paragraphs:

-- Summary of the Invention

The invention relates to an oligoribonucleotide having a double stranded structure (dsRNA). The oligoribonucleotide comprises two separate RNA strands, wherein one strand of the dsRNA has a region which is complementary to an RNA transcript of at least a part of a target gene, wherein the region is not more than 49 nucleotides in length, and wherein the target gene is a mammalian gene. The oligoribonucleotide may have a length of between 15 and 49 base pairs, and the RNA transcript may be a primary or a processed RNA. The oligoribonucleotide may comprise a linker between the two RNA strands, such as a polyethylene glycol linker. The oligoribonucleotide may be modified so as to be resistant to RNA degradation. The oligoribonucleotide may comprise a 3' overhang, such as a single nucleotide overhang. The oligoribonucleotide may be 21 or 23 nucleotides in length.

E3

In another aspect, the invention relates to a method for inhibiting the expression of a target gene in a mammalian cell, such as a human cell. The method comprises (a) introducing into the cell an oligoribonucleotide having a double stranded structure (dsRNA), comprising two separate RNA strands, wherein one strand of the dsRNA has a region which is complementary to an RNA transcript of at least a part of a target gene; wherein the region is not more than 49 nucleotides in length; and (b) maintaining the cell produced in step (a) for a time sufficient to obtain degradation of an RNA transcript of the target gene, thereby inhibiting expression of the

target gene in the cell. The oligoribonucleotide may have a length of between 15 and 49 base pairs, and the RNA transcript may be a primary or a processed RNA. The oligoribonucleotide may comprise a linker between the two RNA strands, such as a polyethylene glycol linker. The oligoribonucleotide may be modified so as to be resistant to RNA degradation. The oligoribonucleotide may comprise a 3' overhang, such as a single nucleotide overhang. The oligoribonucleotide may be 21 or 23 nucleotides in length.

In yet another aspect, the invention relates to a mammalian cell comprising an exogenous oligoribonucleotide, wherein the oligoribonucleotide has a double stranded structure (dsRNA) comprising two separate RNA strands, and wherein one strand of the dsRNA has a region which is complementary to an RNA transcript of at least a part of a target gene. The mammalian cell may be a human cell, the region may have not more than 49 nucleotides in length, the oligoribonucleotide may have a length of between 15 and 49 base pairs, and the RNA transcript may be a primary or a processed RNA. The oligoribonucleotide may comprise a linker between the two RNA strands, such as a polyethylene glycol linker. The oligoribonucleotide may be modified so as to be resistant to RNA degradation. The oligoribonucleotide may comprise a 3' overhang, such as a single nucleotide overhang.

In still another aspect, the invention relates to a composition comprising an oligoribonucleotide as described above. The composition may further comprise a second oligoribonucleotide, wherein the second oligoribonucleotide differs in sequence from the oligoribonucleotide.

Please add the following paragraphs and headings directly below the foregoing replacement paragraphs:

-- Brief Description of The Drawings

FIG. 1 is a schematic representation of a plasmid for the *in vitro* transcription with T7- and SP6-polymerase.

FIG. 2 shows RNA following electrophoresis on an 8% polyacrylamide gel and staining with ethidium bromide.